WHAT IS CLAIMED IS:

1. An active matrix liquid crystal display panel, comprising:

a first substrate on which a plurality of color layers having transmission wavelengths different from each other are provided in parallel to each other;

a second substrate disposed in an opposing relationship to said first substrate with a predetermined clearance left from said first substrate for generating a predetermined electric field when a predetermined voltage is applied; and

a liquid crystal layer formed from liquid crystal injected in a gap defined by a surface of said first substrate adjacent said second substrate and a surface of said second substrate adjacent said first substrate;

the electric field generated by said second substrate being substantially parallel to said liquid crystal layer to control a display;

said liquid crystal layer having a thickness which Varies depending upon the transmission wavelengths of said color layers.

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2

2. An active matrix liquid crystal display panel as claimed in claim 1, wherein said liquid crystal layer has a thickness which increases in proportion to one

wavelength selected from a wavelength region in which transmission factors of said color layers are higher than 70 % those at peaks of transmission spectra of said color layers.

Sub a2

3. An active matrix liquid crystal display panel as claimed in claim 1, wherein said second substrate includes

a plurality of pixel electrodes provided corresponding to said color layers, the predetermined voltage being applied to said pixel electrodes, and

a plurality of opposing electrodes provided in parallel to said pixel electrodes for each of said color layers for cooperating, when the voltage is applied to said pixel electrodes, with said pixel electrodes to generate the electric field therebetween,

said pixel electrodes and said opposing electrodes being spaced from each other by distances which are different for the individual color layers.

4

4. An active matrix liquid crystal display panel as claimed in claim 3, wherein said first substrate has a protective layer provided on a surface thereof adjacent said second substrate for preventing elusion of

impurities from said color layers.

5. An active matrix liquid crystal display panel as claimed in claim 2, wherein said second substrate includes

Sub a3

a plurality of pixel electrodes provided corresponding to said color layers, the predetermined voltage being applied to said pixel electrodes, and

a plurality of opposing electrodes provided in parallel to said pixel electrodes for each of said color layers for cooperating, when the voltage is applied to said pixel electrodes, with said pixel electrodes to generate the electric field therebetween,

said pixel electrodes and said opposing electrodes being spaced from each other by distances which are different for the individual color layers.

6

6. An active matrix liquid crystal display panel as claimed in claim 5, wherein said first substrate has a protective layer provided on a surface thereof adjacent said second substrate for preventing elusion of impurities from said color layers.

7 7. An active matrix liquid crystal display panel, comprising:

a plurality of scanning lines and a plurality of signal lines disposed in an intersecting relationship with each other like gratings on one of a pair of transparent insulating substrates, a plurality of active elements individually provided in the proximity of intersecting points of said scanning lines and said signal lines, a plurality of pixel electrodes connected to said active elements, a plurality of opposing electrodes disposed corresponding to said pixel electrodes, a voltage being applied between said pixel electrodes and said opposing electrodes, a liquid crystal layer disposed between the one transparent insulating substrate and the other transparent insulating substrate, a pair of polarizing plates disposed on the outer sides of said transparent insulating substrates, and a mechanism for controlling a display with an electric field substantially parallel to said liquid crystal layer; and

an optical compensation layer having a negative refractive index anisotropy in a one axis direction, a projection of the anisotropic axis of said optical compensation layer on a plane of one of said substrates being parallel to at least one of polarization axes of

said two polarizing plates, said optical compensation layer being disposed at least between the one transparent insulating substrate and a corresponding one of said polarizing plates.

8. An active matrix liquid crystal display panel as claimed in claim 7, wherein, when the voltage between said pixel electrodes and said opposing electrodes is 0, angles formed by directors of liquid crystal molecules in said liquid crystal layer with respect to a plane of said liquid crystal layer are substantially uniform, and the refractive index anisotropic axis of said optical compensation layer extends substantially in parallel to said directors.

9. An active matrix liquid crystal display panel as claimed in claim 7, wherein a product $\Delta n_{LC} \cdot d_{LC}$ of a refractive index anisotropy Δn_{LC} and a layer thickness d_{LC} of said liquid crystal layer is substantially equal to a product $\Delta n_F \cdot d_F$ of the refractive index anisotropy Δn_F and a layer thickness d_F of said optical compensation layer.

10. An active matrix liquid crystal display panel as claimed in claim 7, wherein a refractive index n_{LO} of said liquid crystal layer for ordinary light and a refractive index n_{FO} of said optical compensation layer for ordinary light are substantially equal to each other.

11. An active matrix liquid crystal display panel as claimed in claim 7, wherein,

when a potential difference between said pixel electrodes and said opposing electrodes is 0, projections of directors of liquid crystal molecules in said liquid crystal layer on a plane of said liquid crystal layer are substantially parallel to each other and a projection of the refractive index anisotropic axis of said optical compensation layer on the plane of said liquid crystal layer is parallel to the projections of said directors on the plane of said liquid crystal layer, and

where an angle of the refractive index anisotropic axis of said optical compensation layer with respect to the plane of said liquid crystal layer is represented by θ_F and angles between said directors and the plane of said liquid crystal layer on interfaces between said

liquid crystal layer and said insulating substrates are represented by θ_1 and θ_2, θ_1 and θ_2 being different from each other, the angle θ_F satisfies $\theta_1 < \theta_F < \theta_2$ or $\theta_2 < \theta_F < \theta_1$, and the refractive index anisotropic axis of said optical compensation layer is parallel to the director of at least one of the liquid crystal molecules in said liquid crystal layer.

12 12. An active matrix liquid crystal display panel as claimed in claim 7, wherein,

when a potential difference between said pixel electrodes and said opposing electrodes is 0, projections of directors of liquid crystal molecules in said liquid crystal layer on a plane of said liquid crystal layer are substantially parallel to each other and a projection of the refractive index anisotropic axis of said optical compensation layer on the plane of said liquid crystal layer is parallel to the projections of said directors on the plane of said liquid crystal layer, and

where an angle of the refractive index anisotropic axis of said optical compensation layer with respect to the plane of said liquid crystal layer is represented by θ_F and angles between said directors and the plane of

said liquid crystal layer on interfaces between said liquid crystal layer and said insulating substrates are represented by θ_1 and θ_2, θ_1 and θ_2 being different from each other, the angle θ_F always satisfies $\theta_1 < \theta_F < \theta_2$ or $\theta_2 < \theta_F < \theta_1$, and the angle θ_F varies in a thicknesswise direction of said optical compensation layer in a corresponding relationship to a variation of the director in the thicknesswise direction of said liquid crystal layer.

13. An active matrix liquid crystal display panel as claimed in claim 8, wherein a product $\Delta n_{LC} \cdot d_{LC}$ of a refractive index anisotropy Δn_{LC} and a layer thickness d_{LC} of said liquid crystal layer is substantially equal to a product $\Delta n_F \cdot d_F$ of the refractive index anisotropy Δn_F and a layer thickness d_F of said optical compensation layer.

14. An active matrix liquid crystal display panel as claimed in claim 8, wherein a refractive index nLO of said liquid crystal layer for ordinary light and a

refractive index n_{FO} of said optical compensation layer for ordinary light are substantially equal to each other.

15 15. An active matrix liquid crystal display panel as claimed in claim 9, wherein a refractive index nLO of said liquid crystal layer for ordinary light and a refractive index n_{FO} of said optical compensation layer for ordinary light are substantially equal to each other.